

What is claimed is:

1. A method of regenerating an ion exchange resin, comprising the steps of:

packing a used ion exchange resin in a
5 regeneration tower; and

repeating at least twice a step comprising passing
an aqueous solution of regenerant through the
regeneration tower downward from a top part of the
regeneration tower and thereafter passing ultra-pure
10 water through the regeneration tower upward from a
bottom of the regeneration tower.

2. The method as claimed in claim 1, wherein the
aqueous solution of regenerant is passed downward at a
space velocity of 1 to 5 hr^{-1} while the ultra-pure
15 water is passed upward at a space velocity of 10 to 30
 hr^{-1} .

3. The method as claimed in claim 1, wherein, in
the regeneration tower, parts brought into contact with
the ion exchange resin, the regenerant and the ultra-
20 pure water are composed of a fluororesin, a vinyl
chloride resin or a polyolefin resin.

4. The method as claimed in claim 2, wherein, in
the regeneration tower, parts brought into contact with
25 the ion exchange resin, the regenerant and the ultra-

pure water are composed of a fluororesin, a vinyl chloride resin or a polyolefin resin.